

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2004/005479

International filing date (day/month/year)
13.05.2004

Priority date (day/month/year)
14.05.2003

International Patent Classification (IPC) or both national classification and IPC
E21B33/13, C04B28/00

Applicant
SERVICES PETROLIERS SCHLUMBERGER

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

10/557106
IAP6 Rec'd PCT/PTO 14 NOV 2005
International application No.
PCT/EP2004/005479

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2004/005479

Box No. II Priority

1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	3,7-11
	No: Claims	1,2,4,5,6
Inventive step (IS)	Yes: Claims	
	No: Claims	1-11
Industrial applicability (IA)	Yes: Claims	1-11
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

Reference is made to the following documents :

- D1:** DATABASE WPI Section Ch, Week 200204 Derwent Publications Ltd., London, GB; Class A93, AN 2002-028940 XP002295616 & JP 2001 146457 A (DENKI KAGAKU KOGYO KK) 29 May 2001 (2001-05-29)
- D2:** DATABASE WPI Section Ch, Week 199209 Derwent Publications Ltd., London, GB; Class A93, AN 1992-072444 XP002296443 & ZA 9 100 876 A (SNASHALL H T) 24 December 1991 (1991-12-24)
- D3:** GB-A-2 271 350 (AMERICAN CYANAMID CO) 13 April 1994 (1994-04-13)
- D4:** WO 01/74967 A (HEYING THEODORE L) 11 October 2001 (2001-10-11)
- D5:** EP-A-0 530 768 (HOECHST AG) 10 March 1993 (1993-03-10)
- D6:** US-A-4 664 816 (WALKER CLARENCE O) 12 May 1987 (1987-05-12)

1. Novelty :

- 1.1 Document D1** discloses a composition for well cementing comprising cement, water, a super-absorbent polymer and a alkali metal aluminate (salt).

Therefore, the subject-matter of **claims 1, 2 and 6** is not considered as being novel over the disclosure of D1.

- 1.2 Document D2** discloses a composition for well cementing comprising cement, water, a super-absorbent polymer (from 0,05 to 0,2 wt%), which can be added before the water (i.e. dry-blended).

Therefore, the subject-matter of **claims 1, 2, 4 and 5** is not considered as being novel over the disclosure of D2.

- 1.3** Since none of the documents cited in the search report disclose all the features of the **claims 3 and 7-11**, it is considered that said claims are novel over said prior art documents.

2. Inventive step :

- 2.1** Considering the fact that polyacrylamides and polyacrylates are well-know water

super-absorbent in this field (see **documents D3 to D5**), nothing inventive could be seen in the subject-matter of **claim 3**.

2.2 Dependent **claims 7-8 and 11** do also not appear to contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the EPC with respect to inventive step.

2.3 Dependent **claims 9-10** do also not appear to contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the EPC with respect to inventive step.

A similar technic is disclose in document D6, where the water super-absorbent are encapsulate, in order to be released later on, once in the subterranean formation.